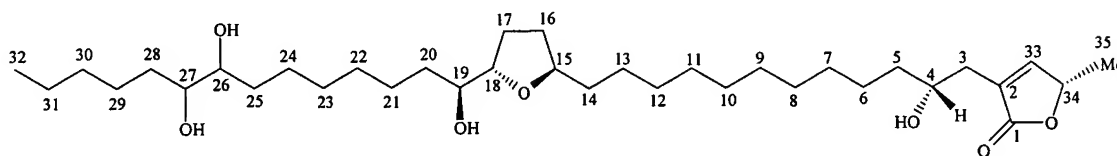


This listing of claims will replace the prior version of claims in the application:

**Listing of Claims:**

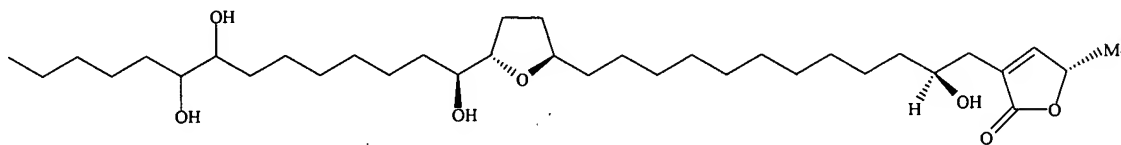
**Claim 1 (previously presented):** Isolated and purified Annonaceous acetogenin compounds having the structures of a-g, wherein

a. muricin A has the formula of:



said muricin A having an  $\alpha$ ,  $\beta$ -unsaturated  $\gamma$ -lactone with a hydroxyl group at C-4, a mono-THF ring placed between C-15 and C-18 with one flanking hydroxyl in a threo conformation, two methylene groups of the mono-THF ring corresponding to a trans conformation, two hydroxyl groups at C-26 and C-27 as vicinal diol assigned as threo based, and the stereochemistry at C-34 on the  $\gamma$ -lactone fragment performed in (S)-configuration;

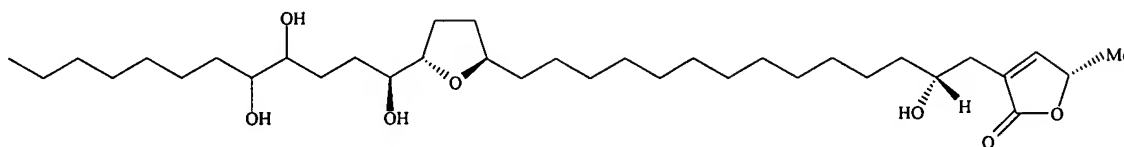
b. muricin B has the formula of:



said muricin B having an  $\alpha$ ,  $\beta$ -unsaturated  $\gamma$ -lactone with a hydroxyl group at C-4, a mono-THF ring placed between C-15 and C-18 with one flanking hydroxyl in a trans/threo conformation, two methylene groups of the mono-THF ring corresponding to a trans conformation, two hydroxyl groups at C-26 and C-27 as vicinal diol assigned as as

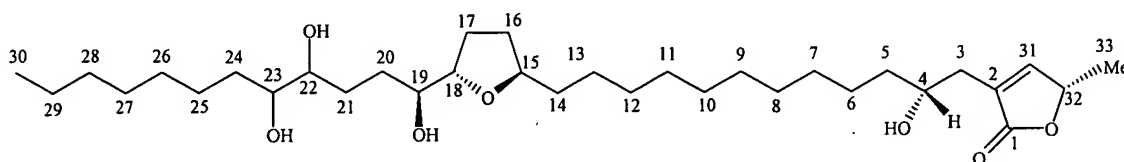
threo based, and the stereochemistry at C-34 on the  $\gamma$ -lactone fragment performed in (S)-configuration;

c. muricin C has the formula of:



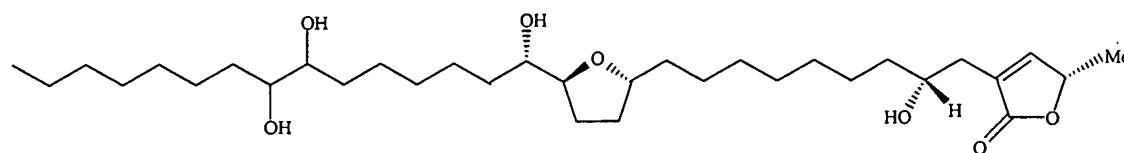
said muricin C having an  $\alpha$ ,  $\beta$ -unsaturated  $\gamma$ -lactone with a hydroxyl group at C-4, a mono-THF ring placed between C-17 and C-20 with one flanking hydroxyl in a trans/threo or threo/trans conformation, two hydroxyl groups at C-24 and C-25 as vicinal diol assigned as threo based, and the stereochemistry at C-34 on the  $\gamma$ -lactone fragment performed in (S)-configuration;

d. muricin D has the formula of:



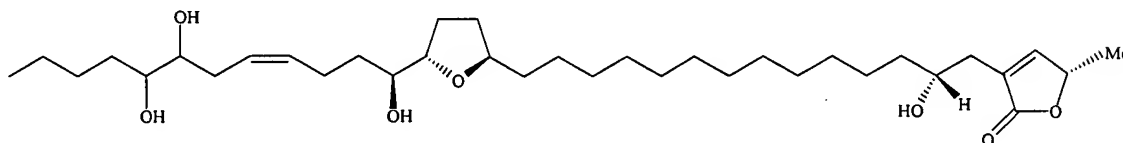
said muricin D having an  $\alpha$ ,  $\beta$ -unsaturated  $\gamma$ -lactone with a hydroxyl group at C-4, a mono-THF ring placed between C-15 and C-18 with one flanking hydroxyl in a threo/trans conformation, two hydroxyl groups at C-22 and C-23 as vicinal diol assigned as threo based;

e. muricin E has the formula of:



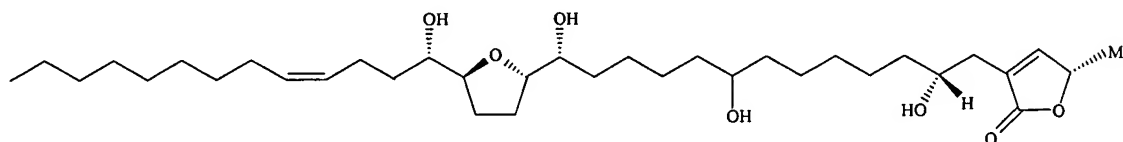
said muricin E having an  $\alpha$ ,  $\beta$ -unsaturated  $\gamma$ -lactone with a hydroxyl group at C-4, a mono-THF ring placed between C-12 and C-15 with one flanking hydroxyl in a threo/trans conformation, two hydroxyl groups at C-22 and C-23 as vicinal diol assigned as threo based;

f. muricin F has the formula of:



said muricin F having an  $\alpha$ ,  $\beta$ -unsaturated  $\gamma$ -lactone with a hydroxyl group at C-4, a mono-THF ring placed between C-17 and C-20 with one flanking hydroxyl in a threo/trans conformation, two hydroxyl groups at C-27 and C-28 as vicinal diol assigned as threo based, and a double bond determined at C-24/C-25; and

g. muricin G has the formula of:



said muricin G having an  $\alpha$ ,  $\beta$ -unsaturated  $\gamma$ -lactone with a hydroxyl group at C-4, a mono-THF ring placed between C-16 and C-19 with one flanking hydroxyl in a threo/trans/threo conformation, one hydroxyl group formed at C-10, a double bond determined at C-23/C-24, and the stereochemistry at C-34 on the  $\gamma$ -lactone fragment performed in (S)-configuration.

**Claim 2 (previously presented):** A method for isolating and purifying the Annonaceous acetogenins compounds according to claim 1 comprising:

extracting muricins from *Annona muricata* seeds with MeOH to obtain a MeOH extract at room temperature;

evaporating and partitioning the MeOH extract in a CHCl<sub>3</sub> and aqueous mixture, whereby said Annonaceous acetogenins compounds are in the CHCl<sub>3</sub> layer of the CHCl<sub>3</sub> and aqueous mixture; and

further separating the Annonaceous acetogenins compounds of said CHCl<sub>3</sub> layer by column chromatography.

**Claims 3-4 (canceled)**

**Claim 5 (currently amended):** An anti-tumor composition comprising an ~~effective~~ amount of substantially pure muricins of claim 1,

wherein the muricins are selected from the group consisting of muricin A, muricin B, muricin C, muricin D, muricin E, muricin F, and muricin G, and

wherein the muricins are effective and act as an anti-tumor agent and combined with a pharmaceutically acceptable carrier in the anti-tumor composition ~~at least one of the Annonaceous acetogenins compounds according to claim 1.~~

**Claim 6 (currently amended):** The Annonaceous acetogenins compounds as claimed in claim 1, wherein the Annonaceous acetogenins compounds are useful ~~used~~ for treatment of patients having a tumor.

**Claim 7 (original):** The anti-tumor composition as claimed in claim 5, wherein the anti-tumor composition is used for pharmaceutically treating a patient having hepatoma cancer.

**Claim 8 (currently amended):** A method of treating a patient having a tumor, wherein said method comprising the step of:

administering an effective amount of a pharmaceutical composition comprising muricins of claim 1 to a patient having a tumor ~~afflicted with cancer~~.

**Claim 9 (currently amended):** A method for treating hepatoma cancer comprising administering to a patient afflicted with hepatoma cancer an effective amount of a pharmaceutical composition comprising ~~at least one~~ Annonaceous acetogenins compounds selected from the group consisting of muricin A, muricin B, muricin C, muricin D, muricin E, muricin F, and muricin G according to claim 1 and a pharmaceutically acceptable salt and ester in combination with pharmaceutically acceptable carrier, auxiliary or excipient.

**Claim 10 (previously presented):** The isolated and purified Annonaceous acetogenins compounds according to claim 1, wherein said compound is isolated from *Annona muricata*.

**Claim 11 (previously presented):** The isolated and purified Annonaceous acetogenins compounds according to claim 10, wherein said compound is isolated from seeds of *Annona muricata*.

**Claim 12 (previously presented):** The method according to claim 2, wherein said column chromatography is an Si gel column.

**Claim 13 (previously presented):** The method according to claim 12, wherein said Annonaceous acetogenins compounds are eluted from the Si gel column by a gradient comprising *n*-hexane-CHCl<sub>3</sub> and CHCl<sub>3</sub>-MeOH.

**Claim 14 (previously presented):** The method according to claim 13, wherein said Annonaceous acetogenins compounds are further purified by a reversed-phase high performance liquid chromatography.

**Claim 15 (previously presented):** The method according to claim 13, wherein said  $\text{CHCl}_3$  layer is separated into ten fractions by the Si gel column.

**Claim 16 (previously presented):** The method according to claim 15, wherein the muricin A, muricin B, muricin C, and muricin F are eluted from the seventh fraction of the Si gel column and further purified by a reversed-phase high performance liquid chromatography.

**Claim 17 (previously presented):** The method according to claim 15, wherein the muricin D (4), muricin E (5), and muricin G (7) are eluted from the eighth fraction of the Si gel column and further purified by a reversed-phase high performance liquid chromatography.

**Claim 18 (previously presented):** The anti-tumor composition according to claim 5, wherein said composition further comprises a pharmaceutically acceptable salt and/or ester in combination with a pharmaceutically acceptable carrier, auxiliary or excipient.